Good Display Specifications

Type: Standard

Model No. GD43QMD-GTT050RDH03

Description:
- 5.0”, 480 x RGB x 272 dots, TFT LCD module.
- With white LED backlight
- VGA and VIDEO signal input.

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Issue Date: 2008.07.10

Good Display

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Version

Date	Version	Content
2008-4-30	VER:1.00	GTH043I9W1-A**
2008-7-10	VER:1.01	

1. Profile：

GD43QMD-GTT050RDH03 5.0" color TFT lcd module is composed of driver board LQ035NC-111AD-HW and 5.0" digital TFT display: GTT050RDH03. This module provides users with Video and VGA signal input and automatic identifying and converting of NTSC/PAL systems, built-in OSD (on-screen display) function, and the OSD menu offers adjustment of brightness, contrast and color. The power control IC is designed for better reliability.

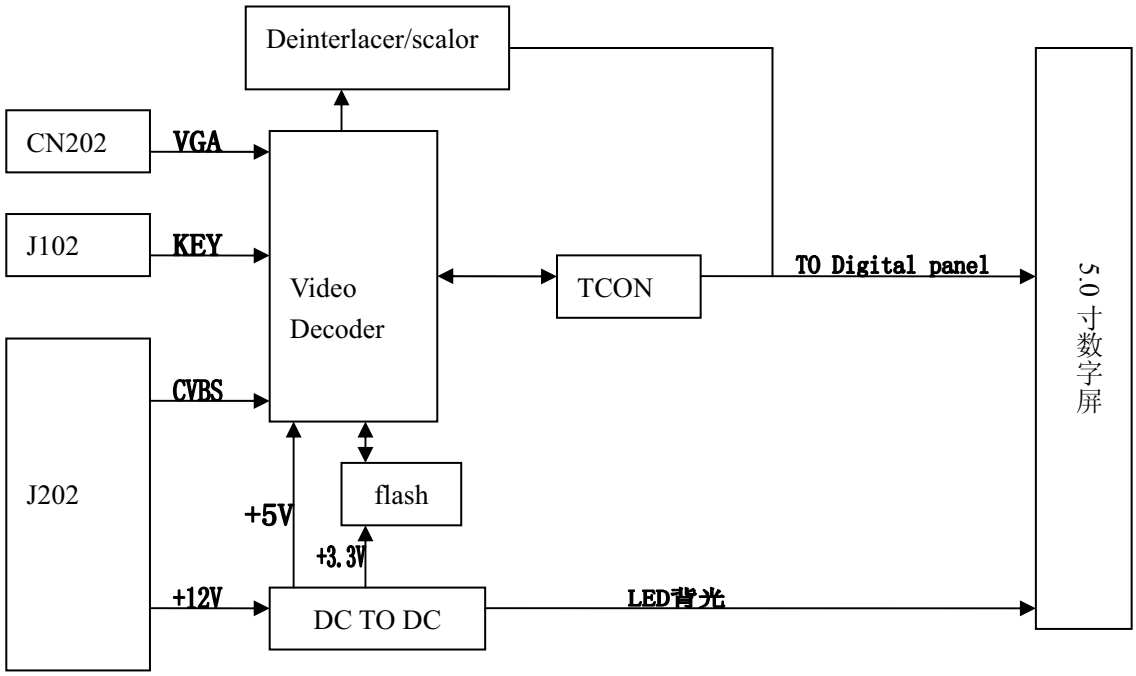
2. Application：

- Office electronic equipment
- Apparatus & measurement appliance
- Machinery
- Audiovisual （Display for car、Protable DVD、Long-distance terminal、Lcd TV）
- Home appliance （Video door phone、Video telephone）
- Don’t use it for high-sophisticated product which need high requirement in term of reliability & stability &accuracy.

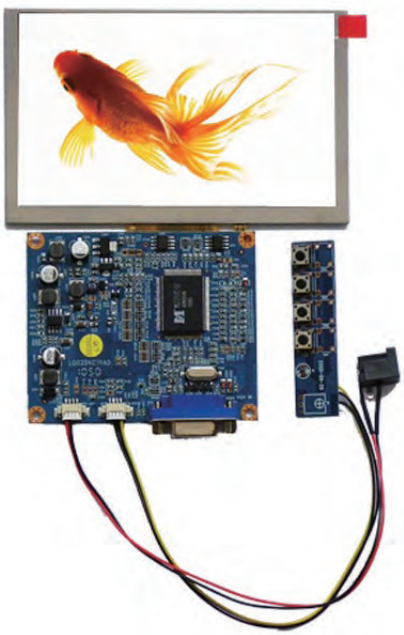
3.Main Parameter：

- Product Name：5.0" TFT LCD module
- Product Model：GD43QMD-GTT050RDH03
- TFT Display：5. 0 " TFT LCD display: GTT050RDH03
- Backlight：LED
- Resolution：800×RGB×480
- Luminance：250 cd/m^2
- View angle（U/D/L/R）：（50/70/70/70）
- Power supply voltage ：DC**9**~15V（Type12V 280mA±20mA ）
- Active Area (mm)：108.00(H)x64.8(V)
- Outside dimension of display(mm)：120.70(W)×75.80（H）×3.10(D）
- Structural dimension of PCB(mm)：80(W)×67.1（H）×15(D）
- Operation temperature：-20~70℃
- Relative humidity：5~95% RH
- Storage temperature：-30℃~+80℃

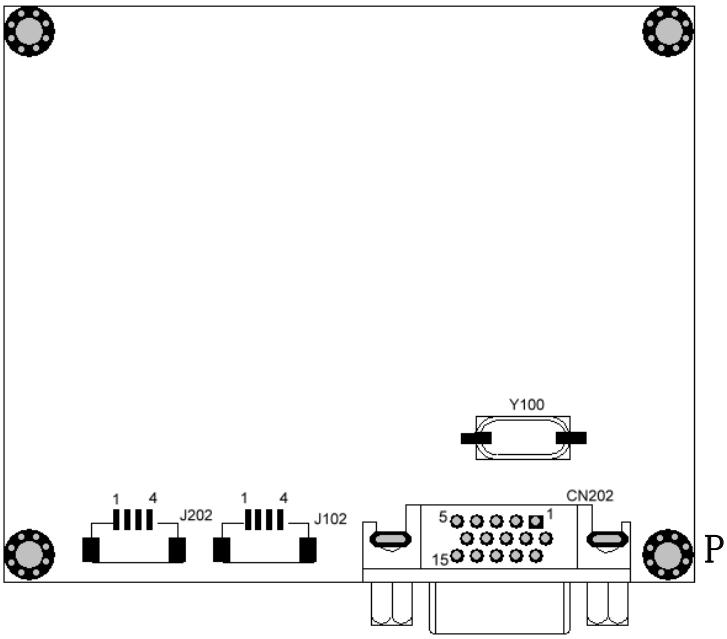
4. Block Diagram：

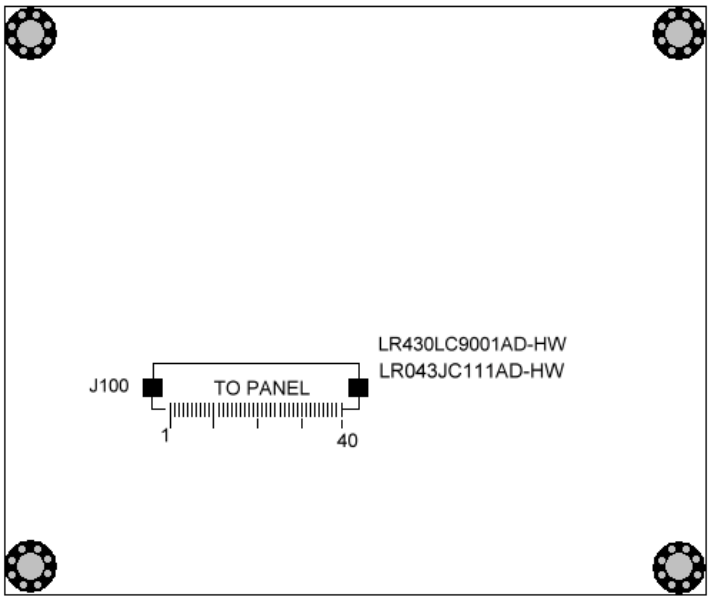


Product Picture：



5.Wiring Diagram:





Key board:

6. Connector Definition for Driver Board:

6.1 The Definition of Key board:

Pin No.	Symbol	Input/Output	J201 Pin No Description	Remark
SW4	SOURCE	I		
SW5	POWER	I	Switch	
SW6	MENU	I		
SW7	+	I	Plus	
SW8	-	I	reduce	

6.2 The Definition of J202:

Pin No.	Symbol	Input/Output	Pin No Description	Remark
1	+12V	I	+12V Input	
2	GND	-	ground	
3	GND	-	ground	
4	CVBS	I	Video input	

6.3 The Definition of J102:

Pin No.	Symbol	Input/Output	Pin No Description	Remark
1	NC			
2	GND	-	ground	
3	SAR0	I	key board input	
4	SAR1	I	key board input	

6.4 The Definition of CN202:

Pin No.	Symbol	Input/Output	Pin No Description	Remark
1	red	I	red Signal input	
2	green	I	green Signal input	
3	blue	I	blueSignal input	
4	NC		NC	
5	NC		NC	
6	red ground	-		

7	green ground	-		
8	blue ground	-		
9	NC		NC	
10	ground	-		
11	NC		NC	
12	NC		NC	
13	H sync	I		
14	V sync	I		
15	NC		NC	

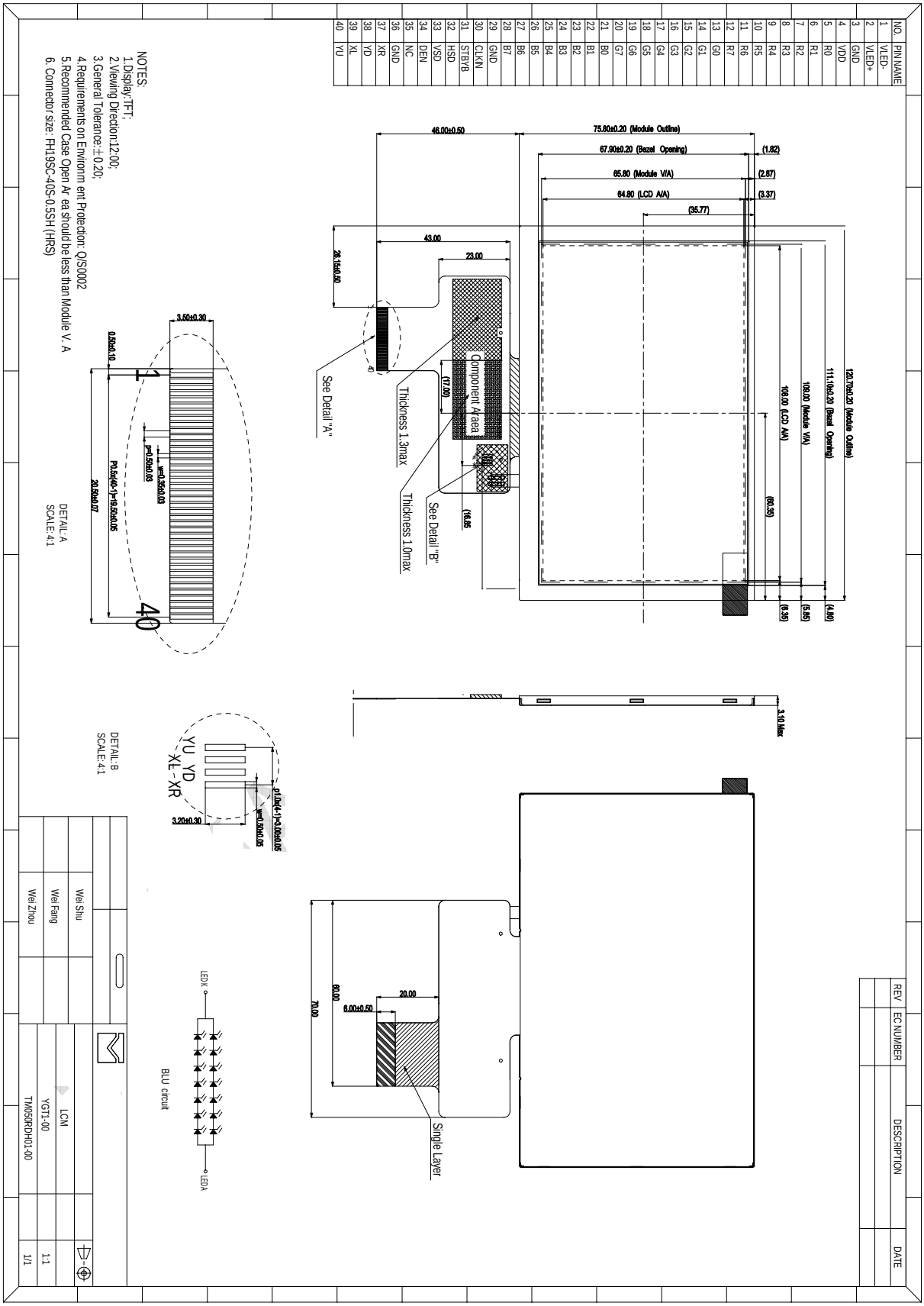
6.5 The Definition of J100：

Pin	Symbol	I/O	Function	Remark
1	VLED-	I	LED Ground	
2	VLED+	I	LED Power	
3	DGND	I	Digital Ground	
4	VDD	I	Power Supply (+2.5 V)	
5	R0	I	Red Data Bit0	
6	R1	I	Red Data Bit1	
7	R2	I	Red Data Bit2	
8	R3	I	Red Data Bit3	
9	R4	I	Red Data Bit4	
10	R5	I	Red Data Bit5	
11	R6	I	Red Data Bit6	
12	R7	I	Red Data Bit7	
13	G0	I	Green Data Bit0	
14	G1	I	Green Data Bit1	
15	G2	I	Green Data Bit2	
16	G3	I	Green Data Bit3	
17	G4	I	Green Data Bit4	
18	G5	I	Green Data Bit5	
19	G6	I	Green Data Bit6	
20	G7	I	Green Data Bit7	
21	B0	I	Blue Data Bit0	
22	B1	I	Blue Data Bit1	

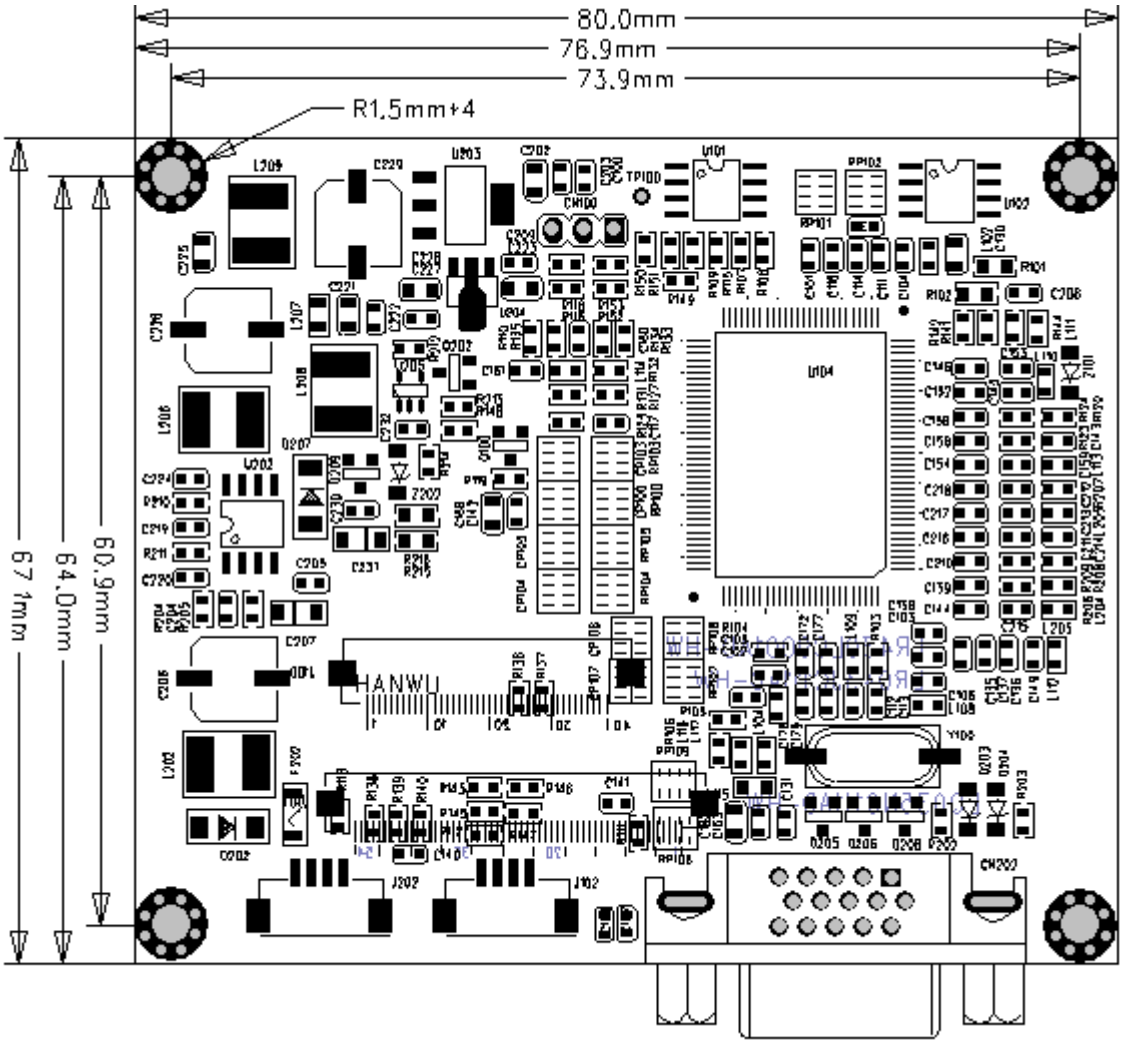
23	B2	I	Blue Data Bit2	
24	B3	I	Blue Data Bit3	
25	B4	I	Blue Data Bit4	
26	B5	I	Blue Data Bit5	
27	B6	I	Blue Data Bit6	
28	B7	I	Blue Data Bit7	
29	DGND	I	Digital Ground	
30	DCLK	I	Dot Data Clock	
31	DISP	I	Display On/Off	Note 1
32	Hsync	I	Horizontal Sync Input	
33	Vsync	I	Vertical Sync Input	
34	DE	I	Data Enable Control	Note 2
35	NC	I	no connect	
36	DGND	I	Digital Ground	
37	NC			
38	NC			
39	NC			
40	NC			

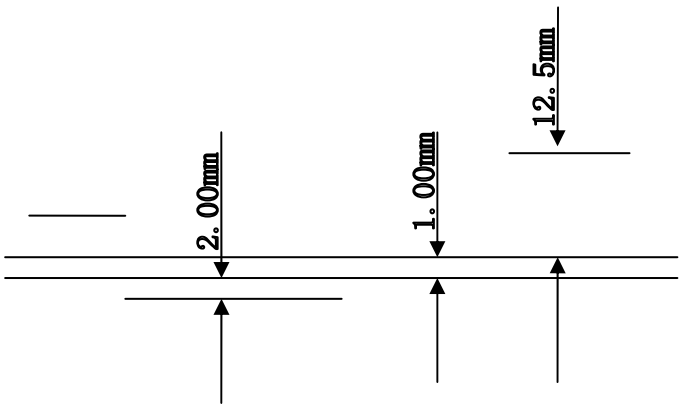
7. Structural Diagram:

7.1 TFT PANEL:



7.2 PCB:


80.0mm
76.9mm
73.9mm
R1.5mm+4
67.1mm
64.0mm
60.9mm
HANWU


12.5mm
2.00mm
1.00mm

8. 4.3" TFT LCD Panel's Determinant standard:

Aim：Establish the standard of PANLE for inspecting material & progress and

Scope：Apply to 5.0″TFT LCD

Content：

8.1Determinant standard and method：

8.1.1. The method and determinant of inspecting the nick of panel of LCD:

8.1.1.1. Inspect vertically (or at 45°angle from left/right)under the light tube (the power is 20 W) in the distance of 30cm to the panel. If there is no nick, it determines "OK", otherwise "NG".

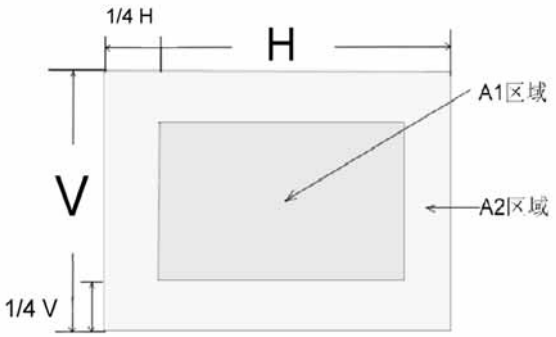
8.1.2. The method and determinative for black & white & color spots for the Panel of LCD： ：

8.1.2.1. Inspecting method

8.1.2.1.1. Black spots：under the situation of "turn on the light"，set the MASK of black spot inspection near the black spot then compare the big and small by eyes.

8.1.2.1.2. White & Color spots: under situation of "turn on the light", set the Mask of black spot inspection on the white spot(or color spot) then observe them by eyes if it can hide.

8.1.2.2 Division of LCD Panel:



Remark：Area of A1：The center of the available area for the picture

Area of A2：The edge of the available area for the picture（8mm around the central area）

8.1.3. Determinant Choice

Spot Diameter（mm）		Allowed Area	
		A1	A2
Black Spot	d≤0.15	Negate	Negate
	0.15<d≤0.25	4	4
	0.25<d≤0.3	2	3
	0.5<d<0.8	0	1
White or color spot	d≤0.15	Negate	Negate
	0.15<d≤0.25	3	3
	0.25<d≤0.3	1	2
	0.5<d<0.8	0	1

Remark: 1. Size: Average Diameter=（Max. Diameter + Min. Diameter）/2

2. Using information above as a standard in order to judge while the e spots are dense.

3. Black & White spot：To judge the obvious spots through the change of voltage by comparison.

4. Total quantity of Black & white & color spot: A1+A2 ≤ 4.

9.Packing:

TBD

10.Attention:

1. Voltage don't exceed upper limit.
2. The connector can't connect board in reverse, or will burn the board and influence the product.
3. Please don't touch it in order to keep your skin non-burn when you electrify the board(High voltage on the board).
4. 5.0"TFT LCD Panel, it is a electric product, so you need to take anti-static measure when you operate it.
5. 5.0"TFT LCD Panel is a glasswork, place carefully, broken for fear.
6. The connection if "FPC", which connect 5.0"TFT LCD Panel to PCB. Please operate it carefully, in order to break off for fear.
7. Don't touch key-press's pin when you adjust brightness, color through soft key-press, due to Person's body have resistance, you will effect image's impact when touch it.